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ABSTRACT

In the United States, two-way immersion (TWI) is an educational approach that integrates native English speakers and native speakers of another language (usually Spanish) for content and literacy instruction in both languages. In recent years, the number of TWI programs has grown rapidly. This report examines key issues to consider when planning elementary level TWI programs, noting the fundamental characteristics that must be in place for the development of successful programs. Suggestions are based on over 15 years of research on TWI education conducted by the Center for Applied Linguistics. Much of the research involves visiting and working with new and experienced programs and learning first-hand about features necessary for a strong program. TWI education is a dynamic form of education that holds promise for developing high levels of academic achievement, bilingualism and biliteracy, and cross-cultural awareness among participating students. Because it requires instruction in two languages to integrated groups of students, it is complicated and challenging to implement effectively. The report looks at the following: essential elements of TWI programs (e.g., definition and goals, criteria for success, and instructional strategies); variable program features (e.g., setting, model, and language distribution); and advice from existing programs (e.g., planning, staffing, and parent involvement). (Contains 31 references.) (SM)

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CENTER FOR RESEARCH ON EDUCATION, DIVERSITY & EXCELLENCE

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Abstract

In the United States, two-way immersion (TWI) is an educational approach that integrates native English speakers and native speakers of another language (usually Spanish) for content and literacy instruction in both languages. Two-way immersion education has been in existence in the United States for nearly 40 years, but its growth in popularity is a more recent phenomenon. Over the past 15 years, the number of programs has risen rapidly, with 266 programs documented in a recent survey. The majority of these programs are Spanish/English programs in public elementary schools. The recent growth and popularity of two-way immersion is due in part to research demonstrating its effectiveness for both native English speakers and native speakers of another language, the recognition by policymakers and educators that the U.S. has a critical need for residents who are proficient in more than one language, and the rapidly increasing number of language minority students entering U.S. schools, the majority of whom are native speakers of Spanish. The increase in the number of programs has led to concerns and questions about how to design and implement effective TWI programs. The purpose of this report is to provide an overview of the key issues to consider when planning an elementary level TWI program, and the fundamental characteristics that must be in place for the development of a successful program. It is intended to serve as a guide for informing the many decisions that must be made by programs as they work toward full and effective implementation. The information provided is based on over 15 years of research on two-way immersion education, conducted by the Center for Applied Linguistics.

Introduction

In the United States, two-way immersion (TWI) is an educational approach that integrates native English speakers and native speakers of another language (usually Spanish) for content and literacy instruction in both languages. Two-way immersion education has been in existence in the United States for nearly 40 years, with early documented programs such as Ecole Bilingue, a French/English program in Massachusetts, and Coral Way, a Spanish/English program in Florida. The growth in popularity of the two-way model, however, is a more recent phenomenon. During the first 20 years, the number of new programs remained relatively low, with only 30 known programs in the mid-1980s (Lindholm, 1987). Over the past 15 years, the number of programs has risen much more rapidly, with 266 documented programs at present (Center for Applied Linguistics, 2002). The majority of these programs are Spanish/English programs in public elementary schools.

Many possible reasons may account for the recent growth and popularity of two-way immersion. First, considerable research has demonstrated the effectiveness of the model for both native English speakers and native Spanish speakers (Cazabon, Lambert, & Hall, 1993; Cazabon, Nicoladis, & Lambert, 1998; Lindholm-Leary, 2001; Thomas & Collier, 2002). This research has indicated that on average both groups of students do as well or better on standardized English achievement tests as their peers in other educational programs. In addition, they develop oral and written proficiency in two languages.

Second, a number of policy makers and educators have recognized that the U.S. has a critical need for residents who are proficient in more than one language. This recognition is fueled in part by the heightened awareness that Americans need multilingual capabilities to keep pace with an increasingly global economy. Similarly, the importance of developing strong cross-cultural skills is very clear, and TWI programs have a strong cross-cultural component at their core (Genesee & Gándara, 1999).

Finally, the population of language minority students—those students whose first language is not English—continues to grow rapidly, with native Spanish speakers making up the largest percentage of this population (National Clearinghouse for English Language Acquisition, 2002). Together, these factors have led to the recent expansion in the number of TWI programs across the United States.

As interest in the model has grown, so have concerns and questions about how to design and implement effective TWI programs. The purpose of this report is to provide an overview of the key issues to consider when planning an elementary level TWI program and the fundamental characteristics that must be in place for the development of a successful program. The suggestions that follow are based on over 15 years of research on two-way immersion education, conducted by the Center for Applied Linguistics. Much of this research has involved visiting and working with new and experienced programs and learning first-hand about the features necessary for a strong program.

Two-way immersion education is a dynamic form of education that holds great promise for developing high levels of academic achievement, bilingualism and biliteracy, and cross-cultural awareness among participating students. At the same time, because it involves the provision of instruction in two languages to integrated groups of students, it is a complicated and challenging model to implement effectively. Great care must be put into design and implementation issues. This report is intended to serve as a guide for informing the many decisions that must be made by programs as they work toward full and effective implementation.

Essential Characteristics of TWI Programs

As the number of TWI programs grows, so does the level of experimentation with the model. On one hand, this experimentation can be very productive, as local educators, parents, and policymakers frequently know best what is appropriate for their communities. At the same time, without a firm understanding of the theoretical underpinnings of two-way immersion education, this type of experimentation can lead to program variations that are developmentally, linguistically, and pedagogically inappropriate. For this reason, a thorough overview of the essential characteristics of two-way immersion education programs and their theoretical justification are provided here. Additional resources to help with designing and implementing two-way immersion programs are located at the end of this publication.

Definition and Goals

There are three defining criteria of TWI programs:

1. The programs must include fairly equal numbers of two groups of students: language majority students, who in the United States are native English speakers; and language minority students, who in the United States are native speakers of another language, such as Spanish, Korean, or Chinese. For this reason, we say that two-way immersion education is distinct from other forms of dual language education (such as developmental bilingual education or foreign language immersion), because it is two-way in two ways: Two languages are used for instruction, and two groups of students are involved, including native English speakers and language minority students from a single language background, usually Spanish.

2. The programs are integrated, meaning that the language majority students and language minority students are grouped together for academic instruction (i.e. not just physical education and music) for all or most of the day.

3. TWI programs provide core academic instruction (i.e., content and literacy courses) to both groups of students in both languages. Depending on the program model, literacy instruction may not be provided to both groups in both languages initially, but by about third grade, all students are typically receiving literacy instruction in both languages.

Following this definition, there are four central goals of all TWI programs. These are discussed below.

1. **Students will develop high levels of proficiency in their first language.** This means that native English speakers will develop high levels of speaking, listening, reading, and writing ability in English, and their performance in these domains will not be compromised by their involvement in a bilingual program. Likewise, the language minority students will develop high levels of speaking, listening, reading, and writing ability in their native language (e.g., Spanish) and will not be asked to forgo development in their native language as their second language proficiency improves.

2. **All students will develop high levels of proficiency in a second language.** For the native English speakers, this means that they will have the opportunity to develop high levels of oral and written proficiency in a second language, such as Spanish, French, or Korean. For the language minority students, this means that

they will develop high levels of oral and written proficiency in English, and that their English language and literacy development will not be diminished because they are also continuing to receive instruction in their native language. For this reason, TWI programs are considered additive bilingual programs for both groups of students; they afford all students the opportunity to maintain and develop oral and written skills in their first language while simultaneously acquiring oral and written skills in a second language. Research has supported the notion that TWI programs are indeed additive bilingual environments (Howard & Christian, 1997; Cazabon, Nicoladis, & Lambert, 1998; Lindholm-Leary, 2001).

3. **Academic performance for both groups of students will be at or above grade level.** The same academic standards and curricula that are in place for other students in a school district will be maintained for students in TWI programs as well. Academic requirements are not diluted for TWI students, and the same levels of academic performance are expected for both TWI students and students enrolled in other programs throughout the district. As indicated previously, evidence that this goal is attainable has been documented in recent empirical studies (Cazabon, Nicoladis, & Lambert, 1998; Lindholm-Leary, 2001; Thomas & Collier, 2002)

4. **All students will demonstrate positive cross-cultural attitudes and behaviors.** Because TWI programs provide instruction in an environment that is integrated linguistically, racially and ethnically, and socio-economically, they allow students to learn first hand about cultures that are different from their own. Thus far, while there is evidence of positive cross-cultural attitudes being developed through participation in TWI programs (Cazabon, Lambert, & Hall, 1993; Freeman, 1998), some studies point to the continuing dominance of the English language and the native English speakers (Amrein & Peña, 2000; Carrigo, 2000; McCollum, 1999). This research suggests that greater attention may need to be paid to this goal if it is to be attained on a larger scale.

Theoretical Rationale

The theoretical underpinnings for two-way immersion education come from a combination of research on the education of language minority students in the United States and research on foreign language immersion education in both Canada and the United States. Research in the United States indicates that language minority students tend to perform better academically when they are provided with education in their native language (Greene, 1998; Thomas & Collier, 2002; Willig, 1985), and that language minority students with higher levels of literacy and academic achievement in their native language tend to attain higher levels of literacy development and academic achievement in English as well (Collier, 1992; Lanauze & Snow, 1989). At the same time, research on immersion education in both Canada and the United States (Genesee, 1987; Lambert & Tucker, 1972; Snow, 1986) has shown evidence that language majority students can maintain grade-level academic achievement and English literacy skills, despite receiving most of their instruction in a second language. They can also acquire oral and written proficiency in a second language at the same time. In other words, research indicates that additive bilingual instruction models can be effective for both language minority and language majority students, because they enable the development of language and literacy in both the native language and a second language without diminishing academic achievement. For a more thorough discussion of the theoretical foundations of two-way immersion education, see Lindholm-Leary (2001).

Criteria for Success

According to Kathryn Lindholm-Leary (see Lindholm, 1990), a leading researcher in the field of two-way immersion education, there are eight criteria that are necessary for all successful TWI programs. Taken together, these eight criteria provide a strong framework for the development of any two-way immersion education program. The eight criteria are listed in Figure 1, and a more detailed description of each criterion is provided below.

Figure 1: Criteria for Success in Two-Way Immersion Education

1. Programs should provide a minimum of 4 to 6 years of bilingual instruction to participating students.
2. The focus of instruction should be the same core academic curriculum that students in other programs experience.
3. Optimal language input (input that is comprehensible, interesting, and of sufficient quantity) as well as opportunities for output should be provided to students, including quality language arts instruction in both languages.
4. The target (non-English) language should be used for instruction a minimum of 50% of the time (to a maximum of 90% in the early grades), and English should be used at least 10% of the time.
5. The program should provide an additive bilingual environment where all students have the opportunity to learn a second language while continuing to develop their native language proficiency.
6. Classrooms should include a balance of students from the target language and English backgrounds who participate in instructional activities together.
7. Positive interactions among students should be facilitated by the use of strategies such as cooperative learning.
8. Characteristics of effective schools should be incorporated into programs, such as qualified personnel and home-school collaboration.

(adapted from Lindholm, 1990)

1. **Programs should provide a minimum of 4 to 6 years of bilingual instruction to participating students.** Programs should plan to begin in kindergarten and continue through the elementary grades. This requires that potential TWI programs draw on a student population that is reasonably stable; districts that have high student mobility patterns across the board are not good locations for TWI programs. Likewise, parents need to understand that a long-term commitment is expected from them and from their children, and unless unforeseen circumstances arise (e.g., the family has an unexpected move midway through the program, or the program is deemed to be inappropriate for the student for any number of reasons), they should plan to keep their children enrolled in the program through the upper elementary grades. This criterion is based on research indicating that language acquisition is a slow process, and full proficiency can take up to 10 years to develop (Collier, 1995). In fact, increasing numbers of established elementary TWI programs are now extending their programs into the secondary level as they see the continued benefits of this educational approach.

2. **The focus of instruction should be the same core academic curriculum that students in other programs experience.** Although instruction is being provided in two languages, the curriculum of a TWI program should not be simplified. Research on second language immersion education in Canada (Genesee, 1987) and sheltered instruction in the United States (Echevarria, Vogt, & Short, 2000) has demonstrated that it is possible to provide high quality academic instruction through a second language, and that through such high quality instruction, students are capable of staying on grade-level (or beyond) academically.

3. **Optimal language input (input that is comprehensible, interesting, and of sufficient quantity) as well as opportunities for output should be provided to students, including quality language arts instruction in both languages.** This suggests that TWI classrooms should be staffed by teachers who can provide students with optimal language input, with "optimal" referring to input that is comprehensible, of high interest, and of sufficient quantity. Teachers should be native speakers or possess native-like proficiency in the language of instruction, and the instructional topics chosen should be developmentally appropriate and of high interest to the students. It is also important to maintain roughly equal numbers of the two language groups in each classroom to provide native language models for second language speakers (i.e., native English speakers to model English for native Spanish speakers and native Spanish speakers to model Spanish for native English speakers), in addition to the teacher.

   Students need opportunities for language output (Swain, 1993). One way to achieve this is through the use of highly engaging and interactive classroom discourse styles, such as instructional conversations—a teaching practice that provides students with opportunities for extended dialogue in areas that have educational value as well as relevance for them (August & Hakuta, 1998; Tharp & Gallimore, 1989). Other instructional techniques such as cooperative learning provide students with more opportunities to engage in conversation with each other, thus furthering their thinking and that of other students. In TWI programs, this need is vital, because students are developing language skills in two languages and require many opportunities to nurture their first language skills and practice their emergent second language skills.

   Explicit language arts instruction in both languages is another necessary component. Depending on the choice of a program model and the decision that is made about the path of initial literacy instruction (to be discussed later in this document), it may be the case that language arts is provided in only one language or the other in the primary grades. Around third grade, however, regardless of the program model or the path of initial literacy instruction, all students should begin to receive it in both languages and continue to receive such instruction through the remainder of the program. This point is very important and can be easily overlooked in the logistics of dividing instructional time between two languages. To fit all required learning activities into a daily or weekly schedule, some programs embed language arts instruction for the minority language into content area instruction. This is done under the assumption that such an approach is sufficient when thematic units are used and there is integration of content and language objectives. While both of these instructional strategies are essential in effective TWI programs, anecdotal evidence suggests that they are not sufficient for promoting the deeper understanding of language and literacy in the minority language that is needed for developing high-level skills in that language. Furthermore, such an approach reinforces the unequal status of the two languages and fails to provide the language minority students with the same opportunity for high-level language arts instruction

in their native language that the native English speakers receive. It is therefore essential to devise a logistical arrangement that enables teachers to provide explicit language arts instruction in both languages to all students at some point in the program.

4. **The target (non-English) language should be used for instruction a minimum of 50% of the time (to a maximum of 90% in the early grades), and English should be used at least 10% of the time.** Because the minority language is by definition in a minority position in the United States, it requires greater promotion if students are to have a realistic chance of developing and maintaining high levels of proficiency in it. In addition, because of the overwhelming strength of English in the United States, it is essential that the minority language be used for sufficient periods of time in the primary grades; otherwise, students run the risk of not developing the level of language and literacy needed to master the academic material that is taught through that language in the upper grades.

   At the same time, because English is the dominant language in the United States, it is essential to provide at least 10% of instruction in English in the primary grades. By doing so, the program ensures that language minority students are provided with explicit English instruction from the time they enter the program, and that native English speakers have a part of the day when instruction is provided in their native language. By Grade 4, the amount of instructional time in each language should be roughly equal if the program started out with more than 50% of instructional time in the minority language.

5. **The program should provide an additive bilingual environment where all students have the opportunity to learn a second language while continuing to develop their native language proficiency.** TWI programs should provide additive bilingual environments in which all students have the opportunity to develop and maintain their native language while acquiring proficiency in a second language.

6. **Classrooms should include a balance of students from the target language and English backgrounds who participate in instructional activities together.** The ideal situation is to have a perfectly balanced classroom, in which half of the students are language minority students from a single language background (e.g. Spanish), and half are native English speakers. While this is not always possible, a one-third/two-thirds rule of thumb is used to distinguish TWI programs from other dual language programs. That is, if more than two-thirds of the student population is from one language background, and less than one-third is from the other language group, then the program does not meet the definition of two-way immersion education. In the Southwest and other parts of the country where there are many students who enter as Spanish/English bilinguals, a one-third/one-third/one-third rule is used, meaning that one-third of the students who enter the program at kindergarten or first grade should be Spanish monolingual, one-third should be Spanish/English bilinguals, and one-third should be English monolingual. All of these rules of thumb for student composition refer to the language dominance of children at their time of entry into the program. Obviously, given the goals of TWI programs, the classifications of children in the program become less meaningful as their proficiency in both languages develops.

7. **Positive interactions among students should be facilitated by the use of strategies such as cooperative learning.** Cooperative learning is a pedagogical strategy that is well-suited for use in TWI programs, both because it provides students with more opportunities for language output and because it gives stu-

dents opportunities to develop social skills and to learn to work with others who are different from them in terms of their native language, race/ethnicity, socioeconomic status, and learning style.

8. **Characteristics of effective schools should be incorporated into programs, such as qualified personnel and home-school collaboration.** In an effective TWI program, as in any effective educational program, certain requirements must be met, such as the need for strong leadership and qualified teachers, and the involvement of parents. Any program that is considering making a switch to a TWI model and that currently lacks any or all of these elements of effective schools must address this lack during the transition. Otherwise, the new program runs the risk of failure.

Instructional Strategies

Teaching in a two-way immersion education program is one of the most challenging situations that a teacher today can face. At all times, regardless of the language of instruction, the teacher must be sure that the content is comprehensible to second language learners, while at the same time providing a sufficiently challenging learning environment for the native speakers. In addition to helping students master academic content, teachers must also help first and second language learners develop language and literacy skills in two languages. These dual demands make the TWI teaching situation especially difficult, and as a result, there are certain instructional strategies that are particularly important in such an environment. A discussion of these strategies follows.

Separation of Languages

By employing a strategy of separation of languages, students have the opportunity to be fully immersed in each language and a reason to function in each language. Using a separation of languages approach requires that the teacher use the minority language exclusively during instructional time in the minority language, and use English exclusively during instructional time in English.

Separation of languages also refers to environmental print in the classroom (e.g., materials, posters, visual aids). If instruction in the minority language and in English is provided by two different teachers in two different classrooms, then each classroom should have all or most of its environmental print in the language being used in that classroom. If the same teacher provides instruction in both languages and the same classroom is used for instruction in both languages, then that classroom must contain environmental print in both languages. However, care should be taken to distinguish the languages, either by using different colors for each language (e.g., Spanish in blue and English in red) or designating different areas of the room for materials in each language. This approach is particularly important in the early grades, when children are learning how to read and write and have only an emergent understanding of orthography, much less knowledge that orthographies and writing conventions vary by language.

Finally, separation of languages also refers to student output. At all grade levels, students should be encouraged to use the language of instruction to the best of their ability in their interactions with others. Obviously, given that language learning is a slow, developmental process, it is unrealistic to expect that kindergarteners and first graders will be able to produce extended discourse in their second language unless they have had considerable exposure to the language outside of school. However, as the children advance through the grade levels, their proficiency in the second language will increase, and the expectations for their use of that language should increase with their proficiency.

Sheltered Instruction

Because second language learners are present at all times in TWI classrooms, regardless of the language of instruction, it is imperative that teachers use sheltered instruction strategies to help make the content comprehensible to all students. Sheltered instruction strategies include speaking at a rate and level of complexity appropriate to the proficiency level of the students; using visual aids, graphic organizers, and manipulatives; building on prior knowledge; providing frequent opportunities for interaction; modeling academic tasks; reviewing key content concepts and vocabulary; and other essential features. (See Echevarria, Vogt, & Short, 2000 for information on a research-based model of sheltered instruction, known as the SIOP Model.) Using these types of techniques allows the TWI teacher to teach the same academic material that is expected of all students at a given grade level but to do it in a way that enables the second language learners to understand it and participate fully in instructional activities.

Furthermore, because language development must be facilitated at all times, it is crucial to ensure that every lesson has objectives for both language and content learning, an important feature of the SIOP Model. In this way, it is possible to have every lesson work "double duty" and to help students meet the standards or other educational benchmarks for both language and literacy objectives and content area objectives. For example, in a science class after studying simple machines, a teacher might ask students to invent their own machine and write about its attributes, giving them practice in using new technical vocabulary and in writing this form of discourse (Short & Echevarria, 1999). When teachers explicitly write language objectives for their lessons and present them to students, it is more likely that the objectives will be incorporated into the lesson activities and considered seriously by teachers and students alike.

Active/Discovery Learning

An instructional strategy that complements sheltered instruction is active/discovery learning, which is based on constructivist, child-centered notions of learning (Ginsburg & Opper, 1988; Vygotsky, 1986). When using an active/discovery learning approach, there is less teacher-fronted instruction and more time for students to work directly with materials in order to understand the concept that is the focus of a particular lesson. For example, when studying the solar system, students may make models of the planets and do simulations of how the planets revolve around the sun. This approach is used widely in many elementary schools in the United States, particularly for math and science instruction, both of which lend themselves to this type of hands-on approach. In TWI programs, the usefulness of active/discovery learning is even greater as second language learners benefit from having tangible objects that they can manipulate in order to help them understand abstract concepts.

Cooperative Learning

As was discussed earlier, cooperative learning is important in TWI programs for a number of reasons. First, it gives students ample opportunities to practice new language skills in both their first and second languages, because it generally allows for more student interaction than does a more traditional, teacher-fronted instructional approach. Second, it gives students opportunities to work together in heterogeneous groups and to develop the cross-cultural understanding that is a central goal of TWI programs. Finally, cooperative learning has been shown to have positive effects on academic achievement when it is done in a way that helps to equalize the status between the different groups of students in a classroom (Cohen & Lotan, 1995).

Grade Levels of Instruction

Most programs start with just a kindergarten level, or at most, a kindergarten and a first grade. The rationale for this is that language learning takes time, and it is better to have students enter the program at an early age so that they have time to develop fluency in their second language before the cognitive demands of the academic material become too great. Similarly, much instruction in the primary grades is very concrete, and instructional strategies that are particularly useful in TWI programs, such as active/discovery learning and cooperative learning, are routinely used. These approaches help students gain linguistic fluency without compromising their comprehension of the academic material. To date, very few programs begin at the pre-K level, but there is currently a great deal of interest in pre-K bilingual education and schools may decide to begin at the pre-K level rather than waiting until kindergarten.

Regardless of whether a program begins with only pre-K, only kindergarten, or kindergarten and first grade, it is important to start with at least two classes at each grade level. Attrition is inevitable in any program, and if a new TWI program starts off with just one class per grade level in the early primary grades, it will very likely be left with a small number of students by the upper elementary grades. It is difficult to add in new students to a TWI program after first grade, because they frequently lack the language and literacy skills in both languages needed to keep up with instruction. In many programs, native English speakers are not allowed to enter the TWI program after first grade unless they can demonstrate grade-level oral and written language abilities in both languages of instruction. Depending on other available program alternatives in the district, language minority students are sometimes allowed to enter at any grade level if the TWI program is determined to be the best educational option for them. Having small numbers of TWI students in the upper elementary grades creates a situation where it is either necessary to combine grade levels to have sufficient class size or form smaller than average classes, which could be problematic for district policy or lead to resentment on the part of non-TWI teachers with larger classes.

In terms of articulation across grade levels, it is essential that the program extend for at least 4 to 6 years, as was stated earlier in the review of criteria for success. This means that a program that starts in kindergarten must continue through at least third grade, and preferably through fifth or sixth grade (the end point of elementary school). In many programs, formal literacy instruction begins in a single language, and formal literacy instruction in the other language is not added to the curriculum until third grade. For this reason, as well as the fact that it takes a long time to develop high level language and literacy skills in a second language, it is recommended that the program continue past the third grade.

Increasing numbers of programs are choosing to extend their TWI programs into the middle school and high school. In those cases, it is essential to attend to articulation across schools. For more information about this topic, see *Implementing Two-Way Immersion Programs in Secondary Schools* by Chris Montone and Michael Loeb (2000).

Variable Program Features

While the preceding section focused on the essential characteristics of TWI programs, this section considers decisions that reflect variations that can be found in different programs. As will be discussed, the reasons for choosing one model over another can be pedagogical (e.g., a decision to begin with native language literacy instruction in a 90/10 program, because the native English speaking population is considered at-risk of academic difficulty), logistical (e.g., a decision to implement a neighborhood school

rather than a magnet school because the district will not provide transportation beyond school boundaries), political (e.g., a decision to implement a 50/50 program because that is what the community will support), or some combination of all three.

Program Setting

When a new TWI program is getting started, two important decisions have to be made with respect to program setting. First, the program may be established in a neighborhood school or in a magnet setting. In the neighborhood school configuration, the program would only be allowed to draw from the population of students that lives within the school boundaries. This approach works well if the population within the school boundaries is linguistically diverse and has sizable populations of both native English speakers and language minority students from a single language group (e.g., Spanish). If the population within the school boundaries is either extremely homogeneous, such that all or most students come from a single language background, or extremely heterogeneous, where there are several language groups and no clear majority among the language minority students, then it would be necessary to move to a magnet school approach in order to implement a TWI program. In a magnet school arrangement, the TWI program is able to pull students from anywhere in the district, and the desired balance of native English speakers and native speakers of the minority language (e.g., Korean) is more likely to be obtained.

The second issue that relates to program setting is the decision of whether to operate as a whole-school program or as a strand within a school. Because it is desirable to start a new TWI program with no more than one or two grade levels (kindergarten and possibly first grade), most programs start off as strands within schools. Each year, as the first cohort of students moves up, the next grade is added. Over time, after the program has grown vertically and has been fully articulated from kindergarten through fifth or sixth grade, it may grow horizontally as well, expanding to four kindergarten classes where there formerly were two, for example. As those four kindergarten classes move up through the grade levels, the program can gradually convert to a whole-school program. Some schools take this route; however, other established programs continue to operate successfully as strands within schools. Whether or not a program expands into a whole-school model depends on the level of interest in the community, the demographics of the student population, and the availability of staff who have the skills necessary to implement the model.

Promoting cohesion between the TWI program and the general education strand within the school is a key priority for programs that operate as strands. Before the decision is made to implement the TWI program, it is useful to provide informational sessions about the TWI model to all staff and parents at the school (not just those likely to be involved with the program), and to allow them to ask questions and voice their concerns at this time. Following these informational sessions, some schools ask staff members and parents to vote on whether or not they would like to initiate a TWI program. This approach of providing background information, responding to questions and concerns, and allowing everyone to vote on the implementation of the program promotes buy-in from everyone and helps to reduce the tension that can arise when programs operate as strands. Once implementation is underway, there are several methods of continuing to foster cohesion across programs within the school. One key factor is to ensure that there are overarching academic goals, behavioral standards, and other cohesion-building elements such as a school mascot, slogan, or song that apply to all students, staff, and parents in the school regardless of program affiliation. The idea is to build a philosophy that unites students in the general education program and those in the TWI program. Another method for promoting cohesion across programs is to establish buddy classrooms by partnering each TWI classroom with a

Figure 2. Program Models: Two Main Varieties

Percentage of Instructional Time in Minority Language by Model and Grade Level

Grade Level	90/10 Model	50/50 Model
K	90	50
1	90	50
2	80	50
3	80	50
4	50	50
5	50	50
6	50	50

general education classroom and having the two classrooms work jointly on projects throughout the year. Likewise, scheduling joint planning time for TWI and general education teachers at each grade level will ensure that academic content instruction is comparable across programs. Finally, making sure that all school committees have representatives from both the TWI program and the general education program will allow the varying perspectives and concerns of the two groups to be voiced and discussed in an ongoing way, and will minimize the level of misunderstanding that could develop otherwise.

Program Model

There are two main program models in two-way immersion education that are generally referred to as "50/50" and "90/10." In both cases, these ratios refer to the percentage of instructional time in each language at the beginning of the program and not the student population. Again, regardless of program model, the student population in any TWI program should be balanced between native English speakers and native speakers of the minority language. A display of the two different program models, with a typical progression of percentages of each language used across grade levels, can be found in Figure 2.

In a 50/50 program, instruction in the majority language and the minority language is divided evenly at all grade levels. This balance is often attained through a daily division, where the morning is spent working in one language and the afternoon is spent working in the other. In a few schools, the balance is achieved through a weekly division, where one week is spent working in one language, and the subsequent week is spent working in the other language. Programs that use this approach tend to use a half-week/half-week approach in kindergarten and first grade, because it is recognized that a full week in the second language is too stressful for young children with limited second language proficiency. In addition, there is sometimes the concern that children may forget language skills that they have attained in their second language if the intervals between instructional periods in that language are too long. This may create a less efficient language learning situation.

In a 90/10 model, 90% of instruction in the first year or two is in the minority language, and 10% is in English. A frequent misperception about this model is that these instructional ratios stay consistent over time, and that students in these programs continue to receive 90% of their instruction through the minority language at all grade levels. As can be seen clearly in Figure 2, this is not the case. Over the course of the

primary grades, the percentage of instruction in the minority language decreases, while the percentage of instruction in English gradually increases. By about fourth grade, the percentage of instructional time in each language reaches a 50/50 ratio and instruction in the two languages stays balanced throughout the remaining elementary grades. These percentages reflect the common trend in the programs. Actual percentages vary locally, with some programs moving more slowly toward the 50/50 balance (staying with 70/30 or 60/40 through fourth or fifth grade). This is more often the case with programs that extend into secondary levels. In any event, the key difference between the two models is the amount of instructional time in each language during the primary grades (K-3) only.

Regardless of the program model chosen, it is important to include activities that take place outside of the classroom when calculating the percentage of instruction in each language. For example, many TWI programs share teachers of subjects such as art, music, physical education, library, and computer with the rest of the school. If those activities are all conducted in English, then this must be included in the percentage of instructional time in English for the students even though it takes place outside of the TWI classroom. Likewise, the amount of exposure that students will have to English through assemblies, morning announcements, lunch/recess, and so on, should also be taken into account. Otherwise, it is very easy to end up with a program that only uses the minority language for a very small part of every day.

Language Distribution

Because two languages are used for instruction in TWI programs, the issue of how to distribute instruction across the two languages is another important decision. In 90/10 programs, because most of the instruction is in Spanish in the primary grades, this does not become a major issue until the upper elementary grades. In 50/50 programs, because instruction is provided in equal ratios in both languages at all grade levels, this is a decision that has to be made from the very beginning.

There are three ways that language distribution can be accomplished, and most programs use a combination of two or all three methods. First, language of instruction can be distributed by time. Accordingly, some time blocks are allocated for instruction in the minority language, while others are allocated for instruction in English. Common structuring of these time blocks includes the morning vs. afternoon or week-by-week language distributions that were described in the previous section on 50/50 programs. A second way that language distribution can occur is by topic. Using this approach, some content areas are taught in English, while others are taught using the minority language. If this approach is used, language arts should still be taught in both languages, as recommended in the earlier discussion of criteria for success. The third way that language distribution can occur is by person, meaning that two teachers work together, with one providing instruction in English and the other providing instruction in the minority language. This approach is often used in combination with the time approach, as students change teachers according to a set schedule (at mid-day, for example).

To better understand the language distribution issue and how it plays out in practice, the following fictional example is provided.

Sra. García is the Spanish teacher, and Mrs. Smith is her English partner teacher in a 50/50 program. Group A (an integrated group of native Spanish speakers and native English speakers) spends the morning working in Spanish with Sra. García while group B (another integrated group of native Spanish speakers and native English speakers) spends the morning working in English with Mrs. Smith. At lunch time, the two groups switch, and group A goes to work in English with Mrs. Smith for the afternoon,

Figure 3: Language Distribution in a Hypothetical TWI Program

Time	Integrated Group	Teacher	Language	Academic Subjects
Morning	A	Sra. García	Spanish	Language Arts Social Studies Science Specials in Spanish (prep time)
	B	Mrs. Smith	English	Language Arts Social Studies Math Specials in English (prep time)
Afternoon	B	Sra. García	Spanish	Language Arts Social Studies Science Specials in Spanish (prep time)
	A	Mrs. Smith	English	Language Arts Social Studies Math Specials in English (prep time)

while group B goes to work in Spanish with Sra. García. In addition to distributing language by person and time, this program also distributes language by content, so that Sra. García teaches science and social studies in Spanish and Mrs. Smith teaches math and social studies in English. Each teacher also provides language arts instruction in her respective language. Both teachers repeat their morning activities with the new group in the afternoon. In this way, all of the children get the full academic schedule but the teachers only have to plan for a half-day of activities. This decrease in planning time is important, because with this approach, the teachers are responsible for twice as many students as the average teacher. A graphic display of this scenario can be found in Figure 3.

Initial Literacy Instruction

There are three main approaches to initial literacy instruction—minority language first, both languages simultaneously, and native language first—and these three approaches tend to be paired with certain program models.

Minority language first. This approach is used in a classic 90/10 model. Students are integrated all of the day, and all students, both native English speakers and native speakers of the minority language, receive initial literacy instruction in the minority language only. Informal literacy exposure in English occurs through the small percentage of the day where instruction in English takes place, and formal literacy instruction in English is added in when the students reach third grade. This approach is only recommended for use with the 90/10 model (or other minority language dominant models, such as 80/20 or 80/10/10) and would not be appropriate with a 50/50 model; native English speakers in a 50/50 model would not be likely to have enough proficiency in the minority language in the primary grades for initial literacy instruction in that language alone to be meaningful to them.

Both languages simultaneously. This approach is most frequently paired with the classic 50/50 model. Using this approach, students again remain in integrated groups all day, and from their time of entry into the program, receive literacy instruction in English during English instructional time and literacy instruction in the minority language during instructional time in that language. In other words, at all grade levels, both groups of students receive literacy instruction in both languages. This approach is only recommended for use with a 50/50 model and would not be appropriate with a 90/10 model, because students in such programs receive a very small percentage of instruction in English in the primary grades, and minority language students may not have enough proficiency in English to make the literacy instruction meaningful.

Native language first. This approach involves separating the students by native language and providing the language minority students with initial literacy instruction in the minority language and providing the native English speakers with initial literacy instruction in English. In some cases, targeted second language instruction is also provided during these times when the two groups are separated. Informal literacy instruction in the second language takes place for both groups through content instruction in each language, and by third grade, the two groups are fully integrated and formal literacy instruction is provided to both groups of students in both languages. This approach is frequently used in situations where a 90/10 model is preferred, but there are concerns about the literacy development of the native English speakers, for example, in cases where they are considered academically at-risk due to poverty or limited literacy exposure at home.

Some 50/50 programs have also begun to use the native language first approach, and it can be effective, but more caution has to be used when implementing this approach to initial literacy instruction in a 50/50 model. First, it is important to ensure that the native English speakers continue to receive 50% of their instructional time in the minority language even if they are provided with initial literacy instruction solely in English. This is especially problematic if an alternating weeks approach is used, because this approach results in a total exposure of only about 25% to the minority language for the native English speakers. Second, if the 50/50 model uses a half-day/half-day model, and if the students work with other teachers for art, music, P.E., and so on, then adding an additional switch and potential teacher change for initial literacy instruction could result in a schedule that looks more like a middle school model. This much transition on a daily basis could be disruptive and developmentally inappropriate for young children.

Regardless of program model, this approach of dividing students into native language groups for initial literacy instruction is not appropriate when a large percentage of students in the program enter as bilinguals and have no clear language dominance. In this situation, it would be difficult to determine which language would be more appropriate for each child to receive initial literacy instruction in, and could result in arbitrary groupings that are determined more by logistical concerns (such as having equal group sizes) than pedagogical ones.

Advice from Existing Programs

As part of the questionnaire that existing TWI programs fill out in order to be listed in the online *Directory of Two-Way Bilingual Immersion Programs in the United States* (Center for Applied Linguistics, 2002), staff are asked to comment on the most important features of their programs and to offer advice to new programs. A synthesis of the most frequent responses is provided here.

Planning

Many programs stress the importance of taking time to plan before trying to implement two-way immersion education. These programs suggest applying for a planning grant to support the planning process, involving the entire school and community in the planning process, making connections to existing programs, and visiting other schools in order to see first-hand how TWI programs and classrooms operate.

Teachers and Staff

As many respondents indicated, strong teachers and other staff form the cornerstone of a strong TWI program. For this reason, respondents commented on the need to recruit teachers and staff who are prepared, enthusiastic, and committed to working in a TWI program and to provide quality staff development, both before a new staff member joins the program and throughout a staff member's tenure. Suggestions were made that project staff should meet at least once a month for staff development and coordination, and that teachers should meet on a regular basis to plan lessons and work cooperatively. Such frequent communication and collaboration is likely to result in a TWI program that is more cohesive, and where the needs of students are being served both within a given grade level and across grade levels.

Parent Involvement

Just as it is important to have strong teachers and staff in order to have a high-functioning TWI program, it is also important to have a community of parents that is committed to the program and will work collaboratively with teachers and staff to strengthen it. Make certain that both the parents of the language minority students and the parents of the native English speakers participate in the TWI program in similar ways. Because TWI programs are intended to help equalize the status of the two languages and the two groups of students, it is important to pay attention to this at the level of parent involvement, as well as in the classrooms. Both groups of parents should have equal access to information and be equally involved in activities that exert the most power and influence over the program (such as participation in curriculum committees and holding PTA officer positions). This is one way to help equalize the status of the two languages and the two groups of students, and of ensuring that the academic needs of all students are being met.

Many programs provide parent workshops, particularly second language lessons (i.e., ESL for the language minority parents and courses in the minority language for the native English-speaking parents), so that parents can become familiar with both the language that their child is learning in school and the process of second language acquisition in general.

Equal Status of the Two Languages, Cultures, and Groups of Students

As we discussed in the previous section on parent involvement, equal status of the two languages is critical to the success of the program. Also important is the commitment of the teachers and the principal to quality education in both languages, and a respect for and celebration of the culture and the language of both groups of students.

High Expectations

Respondents commented on the need for TWI teachers to have high expectations of students. This can be challenging in a TWI program, given that all students are working in their second language for part of the time. During that time, it is easy to think that the students are not functioning at high levels and the curriculum is too difficult. However, with the right instructional strategies, it is possible to communicate high-level academic content and maintain high expectations for all students, regardless of whether they are working in their first or second language. TWI programs are enrichment programs rather than remedial ones, and high standards should be set, expected, and maintained for all students at all times.

Ongoing Reflection and Self-Evaluation

Any high quality educational program recognizes that ongoing reflection and self-evaluation are essential elements. It is important for TWI programs to systematically collect data about student performance, meet regularly to look at and reflect upon those data, and make informed changes to their instructional programs based on those reflections. The time and resources required to enable such reflection are important ingredients in the success of TWI.

Conclusion

As is evident from the information presented in this document, there is much to consider when designing and implementing a two-way immersion program. Some characteristics of TWI programs are essential and need to be in place in any TWI model, while others are variable across programs. TWI programs hold great promise and when well-implemented are among the most impressive forms of education available in the United States. Students who participate in these programs exit with grade-level academic ability, well-developed language and literacy skills in two languages, and cross-cultural competence. TWI programs are challenging to implement and require a significant amount of planning prior to execution. It is hoped that this document will provide guidance for those currently in the stages of designing and implementing TWI programs.

Resources for Planning and Implementing A Two-Way Immersion Program

The Center for Applied Linguistics has a number of useful resources related to two-way immersion education listed on its website (www.cal.org/twi), including the *Directory of Two-Way Bilingual Immersion Programs in the United States*, a fact sheet that answers frequently-asked-questions about TWI, and a comprehensive TWI bibliography divided by subject area. Also on the CAL website, see the ERIC Clearinghouse on Languages and Linguistics (ERIC/CLL) Resource Guide Online for two-way immersion education (http://www.cal.org/ericcll/faqs/rgos/2way.html). The guide includes information on relevant ERIC/CLL publications, publications from other sources, Web sites, organizations of interest, and conferences. It also offers useful searches of the ERIC database with information on ordering ERIC documents.

The following publications are particularly useful for those involved in planning and implementing TWI programs:

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RR 1 *From At-Risk to Excellence: Research, Theory, and Principles for Practice*, by R. Tharp, 1997

RR 2 *Scaling Up School Restructuring in Multicultural, Multilingual Contexts: Early Observations from Sunland County*, by S. Stringfield, A. Datnow, & S. M. Ross, 1998

RR 3 *Becoming Bilingual in the Amigos Two-Way Immersion Program*, by M. T. Cazabon, E. Nicoladis, & W. E. Lambert, 1998

RR 4 *Pedagogy Matters: Standards for Effective Teaching Practice*, by S. Dalton, 1998

RR 5 *Educational Reform Implementation: A Co-Constructed Process*, by A. Datnow, L. Hubbard, & H. Mehan, 1998

RR 6 *The Effects of Instructional Conversations and Literature Logs on the Story Comprehension and Thematic Understanding of English Proficient and Limited English Proficient Students*, by W. M. Saunders & C. Goldenberg, 1999

RR 7 *Collaborative Practices in Bilingual Cooperative Learning Classrooms*, by J. J. Gumperz, J. Cook-Gumperz, & M. H. Szymanski, 1999

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RR 10 *Impact of Two-Way Bilingual Elementary Programs on Students' Attitudes Toward School and College*, by K. J. Lindholm-Leary & G. Borsato, 2001

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EPR 4 *Personalizing Culture Through Anthropological and Educational Perspectives*, by R. C. Henze & M. E. Hauser, 1999

EPR 5 *Implementing Two-Way Immersion Programs in Secondary Schools*, by C. Montone & M. Loeb, 2000

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EPR 8 *Educating Hispanic Students: Obstacles and Avenues to Improved Academic Achievement*, by Y. N. Padrón, H. C. Waxman, & H. H. Rivera, 2002

EPR 9 *Two-Way Immersion 101: Designing and Implementing a Two-Way Immersion Education Program at the Elementary Level*, by Elizabeth R. Howard & Donna Christian, 2002

Occasional Reports

The Role of Classroom Assessment in Teaching and Learning, by L. Shepard, 2000

A National Study of School Effectiveness for Language Minority Students' Long-Term Academic Achievement, by W. Thomas & V. Collier, 2002

Multimedia

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Video	*Studies in Native American Education: Improving Education for Zuni Children*, 2002
Video	*Helping English Learners Succeed: An Overview of the SIOP Model*, 2002
Video	*The SIOP Model: Sheltered Instruction for Academic Achievement*, 2002

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